

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Herbert Campbell

GENERAL INFORMATION:

Name:	Western Kentucky Energy Corporation Reid/Henderson Station
Address:	P.O. Box 1518, Henderson, Kentucky 42419-1518
Date application received:	August 20, 2004
SIC/Source description:	4911; Electric Power Generating Facility
Source I.D. #	21-233-00001
Source A.I. #	4196
Activity I.D. #	APE20040001
Permit number:	V-05-022

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input checked="" type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input checked="" type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☒ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):
- ☒ Compliance Assurance Monitoring (CAM) Plan included in renewal application.

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)**	Potential (tpy)
PM/PM ₁₀	1036/266	249,198/100,370
SO ₂	10445	98,288
NO _x	5044	22782
CO	313	751
VOC	37	127.5
LEAD	.133	12.9

** Actual based on current EIS reported values.

SOURCE PROCESS DESCRIPTION:

An application for a renewal of the Title V Permit, V-99-066, for the Western Kentucky Energy Corporation/Reid-Henderson Generating Station was received on August 20, 2004. A nitrogen oxides (NO_x) budget permit application was received on June 16, 2003. The new Title V permit will include a renewal of the Phase II Acid Rain Permit and the NO_x Budget Permit.

The source is an electric power generating station consisting of three (3) pulverized coal-fired boilers and one combination gas/oil fired combustion turbine. The boiler E. Unit 01 has an input capacity of 834 mmBtu/hr and the boilers, E. Unit 02 and E. Unit 03 each have an input capacity of 1568 mmBtu/hr. Each of the three units is wall-fired, and equipped with an electrostatic precipitator (ESP). E. Unit 02 and E. Unit 03 have flue gas desulfurization (FGD), and are equipped with low nitrogen oxide burners and selective catalytic reduction (SCR) technology. In addition, ash, coal and limestone related equipment are utilized.

The facility is classified as a Title V major source of air pollution based on the potential to emit more than 100 tons per year (tpy) of particulate matter less than 10 microns (PM₁₀), carbon monoxide (CO), nitrogen oxides (NO_x), and sulfur dioxide (SO₂). Also, the Source is a Synthetic Minor for petcoke usage; and in order to preclude applicability of 401 KAR 51:017 Prevention of significant deterioration of air quality (PSD), emissions of sulfur dioxide shall not exceed 20,846 tons during any consecutive twelve month period in which any amount of petroleum coke is burned.

EMISSION AND OPERATING CAPS DESCRIPTION:

In order to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, total emissions of sulfur dioxide from Emissions Units 01 and 02 at the R. D. Green Station and Emissions Units 01, 02 and 03 at the Reid/Henderson Station shall not exceed 20,846 tons during any consecutive twelve (12) month period in which any amount of petroleum coke is burned.